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Sticks and Stones: The Impact of Language in Musculoskeletal Rehabilitation

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"*Words are, of course, the most powerful drug used by mankind.*"

Rudyard Kipling[13]

Throughout the often complex and challenging process of musculoskeletal rehabilitation, the words that we use can have a significant impact on the clinical outcome. Words contain both the ability to heal and harm. Gaining an improved understanding of the frequently hidden influence that language can have on musculoskeletal rehabilitation is of paramount importance. This Viewpoint article highlights the powerful consequences of the words that we use in clinical practice and discusses the practical considerations for adapting the current language of musculoskeletal rehabilitation.

One foundation of effective musculoskeletal rehabilitation lies in our ability to communicate and guide people toward recovery. As clinicians, we play a pivotal role in the lives of people in vulnerable, distressing situations. The words we choose can either contain the capacity to heal or have the potential to cause devastating and lasting harm.[2] Like drugs, words have an ability to change the way another person thinks and feels. Words are capable of corrupting or enhancing thoughts. Words can generate good or bad emotions and prompt actions that can lead to positive or negative behavior change. The worry and uncertainty of living with a chronic musculoskeletal condition frequently lead to a perpetual search for answers. This can be a real problem in a world of online information and misinformation. We are only ever one click away from either confirming our darkest fears or igniting a previously unconsidered concern.

Mounting research evidence indicates that psychological factors are more effective predictors of pain and disability levels than are pathoanatomical factors.[6,12,14] It is therefore ironic that, by continuing to focus on the latter, clinicians may well unwittingly exacerbate the former. Psychological factors need to be acknowledged and understood, and deliberately used as part of therapy. Misunderstanding or ignoring psychological factors carries the risk that they may have a negative effect on therapy. A major problem is that our therapy, and professional education, still emphasizes biomedical issues, with a focus on pathoanatomical language. Biomedical issues account for more than 99% of all undergraduate health care training.[4]

Despite an increasing awareness of the importance of psychological factors, and of the potent influence that language has on individual pain perceptions, musculoskeletal practice can be a minefield of threatening words and ambiguous information. Without a meaningful reconceptualization of pain as a highly complex, subjective human experience that is felt in the tissues but interpreted by the mind as a response to perceived threat,[17] clinicians will likely remain unaware of the potential harm that their words may cause.[15]

In musculoskeletal rehabilitation, we should remain eternally vigilant about how our words may be interpreted. Human beings consist of muscles, bones, and tissues, but the words we use in therapy can have a profound influence on how people make sense of their bodies and

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how they interpret what they are experiencing. A term such as *degenerative discs* may sound mild and straightforward to a clinician but catastrophic to a patient. In this sense, words are like toothpaste; once out of the tube, they are impossible to put back in. As clinicians, we need a keen sensitivity to how our patients are responding to the words we use. We need to talk about pathoanatomical features and the realities of therapy in a way that patients can understand, without being alienated. This is complicated by the fact that different patients will have different levels of understanding and will interpret what we say in different ways.

Bullington et al[5] state that, "To encounter another human is to encounter another world." With this in mind, there cannot be one simple recipe or formula for how we might use language within clinical practice. Not all medicalized language is harmful to all individuals.[1] We must, of course, continue to ask crucial clinical questions, such as, "Have you noticed any problems with your bladder or bowels?" while also recognizing the potential impact that this question may have for anyone who's worried about potential problems with bladder or bowel function.

The following clinical vignette highlights some examples of the frequently concealed threats that are present in the language of present-day musculoskeletal rehabilitation.

Ben is a talented, 15-year-old track athlete. He presents with a 2-year history of worsening low back pain, and has been advised by a previous clinician to give up running and start swimming instead. Ben has also been told that, despite his age, his magnetic resonance imaging scan shows that he has "degenerative discs" in his lumbar spine. He attended the clinic with his grandfather, who is also his coach. His grandfather has a long-standing history of low back pain and has been diagnosed with "failed back surgery syndrome." In an attempt to help Ben, his previous physical therapist has advised him to read an online educational booklet, which has been designed for young athletes with low back pain. The booklet contains the following words: "Treatment is similar to treatment of a disc herniation in the adult population. Epidural injections can be used but are not necessary in most cases. If symptoms do not improve with a comprehensive rehabilitation program, then surgery may be indicated. This is necessary only in a small percentage of young athletes with disc injury."

Ben says that he feels broken and cannot switch off the thought that he is going to need spinal surgery. Although Ben may be distressed, he is not alone. As the current international pain epidemic continues to escalate,[9] it is time to consider whether the words we use form part of people's solution or part of their journey toward disabling vulnerability. For Ben and millions of others like him to return to lives that are rich and meaningful, clinicians need to develop the communication skills to help reframe medical findings so that they make sense to patients and show the way forward.

In practical terms, the first step needed to help Ben is for him to come to terms with what is happening in a way that is realistic without being fatalistic. It is the clinician's duty of care to help Ben reconceptualize the information provided to him, such that the so-called "degeneration" may be regarded as a normal age-related change, which may be enough to change Ben's perceptions while remaining truthful. However, a lot of education may be needed before Ben can accept that the term *degenerative discs* does not mean that his spine is crumbling and requires urgent intervention. It may take some time and carefully worded support from a therapist for Ben to see his situation in these new terms. An essential step on the road to rebuilding self-efficacy and resilience is to understand that people can often be distressed and disabled by their view of things. There is plenty of evidence to support the claim that if we change the way we view things, the things we view can change.[10] We can help people like Ben to change his view of his body, and a new view can be therapeutic in itself, despite any deviation from normal that may be present.

Like Ben, many people receive routine scans and radiographs, which are considered the gold standard to determine the pathoanatomical source of their symptoms. The language used with patients in diagnosis and therapy is just as important as, if not more than, the findings of such scans. The words used to report medical imaging to patients like Ben may underpin and perpetuate unhelpful, outdated societal beliefs that the spine is fragile, vulnerable, and irreparable.[7] However, evidence shows that by rewording and broadening the context of medical language used with patients, clinicians may begin to liberate people from a life of unnecessary worry and disability.[3] Therefore, by focusing our language toward Ben's hopes, and not his hurts, we may begin to lay the foundations for his recovery. A vivid example of this is the account of Mattingly,[16] who describes a therapist taking a new patient around a rehabilitation facility, showing him where the various activities will take place. The new patient is a young man with a head injury. The therapist is careful to use words that emphasize how the therapy will lay down the foundations of a new life that can have purpose and be meaningful. Mattingly[16] describes this approach as "therapeutic emplotment." Without this therapeutic emplotment, there is a serious risk that the patient may not engage in the therapy because the patient will see it as meaningless. In this therapeutic situation, the words used are crucial to the success of the therapy because they encourage the patient to adopt a positive attitude. There is a focus on what someone can do (or will be able to do with help) rather than on what they cannot do.

For patients like Ben, the word "degenerative" can be truly alarming. The language of musculoskeletal rehabilitation is filled with opportunities for patients' misinterpretations of medical terminology. When communication is not clear, our interpretations are colored

by our psychological state. Ben has preexisting knowledge leading to the concern that, like his grandfather, he will also require surgical intervention that may eventually lead to "failed back surgery syndrome." This distorts how he interprets the message he receives. As with Ben's narrative, Sillence et al[21] found that patients tended to value advice offered by family and friends over other sources of health information. However, conflicting advice from multiple sources also led to confusion and uncertainty.

Ben is selectively attending to information that fits his worldview. The words used reinforce Ben's worries. For example, Ben focused on the words "surgery may be indicated" within the educational booklet to the exclusion of all else. Ben's attentional bias naturally went in search of information to support his beliefs. As such, the words "surgery may be indicated" were adapted to become the more alarming certainty, "I will need surgery!"

Biro[2] noted that single and at times offhand statements can heavily influence recovery expectations. This is important when we consider that low recovery expectations are a strong predictor of poor outcome.[12] Within musculoskeletal rehabilitation, common words relating to the probability of an outcome, such as "may," "possibly," or "perhaps," can be easily dismissed and negatively determine our emotional responses. Many patients with musculoskeletal conditions are anxious about their future and are naturally predisposed to see the negative rather than the positive. When we are physically and emotionally low, we not only hurt more easily, we also seek information that supports our vulnerabilities.[11] Health professionals need a keen sensitivity to the ways in which patients hear their words and how those words may be misinterpreted.

So, if words like "degenerative" are problematic, how else might health care professionals describe pathoanatomical findings? This is a major problem, as it is clear that the commonly used "wear and tear" metaphor may also lead to unhelpful notions of "rusty" body parts.[1,18] It can be helpful to look at the underlying metaphors shaping how clinicians and patients think through what is happening and what is being said. A number of researchers have pointed out the different metaphors used by clinicians and patients and how they are used.[22] The common metaphor of the machine is often used to represent physical changes in terms such as "wear and tear." This may be unproblematic for clinicians, but for many patients a machine that has "wear and tear" needs a technical fix, and things will only get worse if this technical fix is not provided. This may be why so many patients are so desperate to find such a technical fix.

Changing the underlying metaphor to one such as "life is a journey" can help.[20,23] The emphasis in therapy then becomes on helping people manage their conditions (such as chronic pain) and move on with their lives, so that something like chronic pain can be managed in the background of their lives without dominating the foreground and distracting them from their life goals and valued activities.[15] This highlights the need for clinicians to have excellent relationship skills to help patients manage how they interpret what is happening to them in a positive way. All this means that in the clinical encounter, a clinician needs to go beyond a 1-dimensional focus on biomedical issues and adopt a more panoramic view of how the biomedical issues fit into the world of a patient. We need to keep asking ourselves questions such as, "What does it all mean to them?" and "How can I help them find a positive outlook in this situation?" This involves the exploration of how language can impact social, psychological, biological, and cultural factors.[19] The **TABLE** displays a list of typical words to avoid in musculoskeletal rehabilitation, and suggests a range of alternative terms to use with patients.

In summary, all musculoskeletal conditions must be viewed within a more comprehensive framework that takes account of biomedical issues and includes how patients perceive their injuries, their disabilities, their pain, and how they make sense of what is happening to them. The words we (and our patients) use are

TABLE Typical Words to Avoid and Alternatives for Patients

Words to Avoid	Alternatives
Chronic degenerative changes	Normal age changes
Negative test results	Everything appears normal
Instability	Needs more strength and control
Wear and tear	Normal age changes
Neurological	Nervous system
Don't worry	Everything will be okay
Bone on bone	Narrowing/tightness
Tear	Pull
Damage	Reparable harm
Paresthesia	Altered sensations
Trapped nerve	Tight, but can be stretched
Lordosis	The normal curve in your back
Kyphosis	The normal curve in your back
Bulge/herniation	Bump/swelling
Disease	Condition
Effusion	Swelling
Chronic	It may persist, but you can overcome it
Diagnostics	X-ray or scan
You are going to have to live with this	You may need to make some adjustments

crucial to this more comprehensive view. Eccleston and Crombez[8] state, "Pain is an ideal habitat for worry to flourish." Without such a reconceptualization, clinicians will likely remain unaware of the potential harm that their words may hold. As a result, they may continue to unknowingly fertilize pain's vulnerable ground.

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